

0069462

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0775-01 SAF-RC-001

Rad only ☒ Chem only Rad & Chem

☒ Complete Partial

300 Area 333 Bldg

RECEIVED
APR 28 2006
EDMC



Report Identification Number: 06I-0775-01
 Subcontract Number: 0000X-BO-G0058-B-Mod#4
 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
 Laboratory Identification Number: DCHM
 SAF#: RC-001 /R33300 J451
 Payroll#: 0636267

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
13 Feb 2006	J114X8	06I06389	NMAM 7300M	G061P015	MCE
13 Feb 2006	J114X9	06I06390	NMAM 7300M	G061P015	MCE
13 Feb 2006	J114X3	06I06391	NMAM 7300M	G061P015	MCE
13 Feb 2006	J114X4	06I06392	NMAM 7300M	G061P015	MCE
13 Feb 2006	J114X5	06I06393	NMAM 7300M	G061P015	MCE
13 Feb 2006	J114X7	06I06394	NMAM 7300M	G061P015	MCE
13 Feb 2006	J114X6	06I06395	NMAM 7300M	G061P015	MCE

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Name: Lisa M. Reid
 Title: Chemist
 Date: February 24, 2006

Report Identification Number: 06I-0775-01
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General Set Information: There are 6 samples in set 06I-0771-01, 6 samples in set 06I-0773-01 and 7 samples in set 06I-0775-01 which were analyzed for beryllium, lead and cadmium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.02 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.08 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 1. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in the media blank sample above the Contract Required Detection Limit (CRDL).

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS result was within the control limit of +/- 20%. The Relative Percent Differences (RPD) between the LCS and the LCSD was within the control limit of 20%.

Replicate Analysis: Two samples were replicated with this analysis run. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g}/\text{sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g}/\text{L}$)

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g}/\text{L}) \times (0.025 \text{ L}/\text{sample}) \times (1) = 0.025 \mu\text{g}/\text{sample}$

Miscellaneous Comments: None.

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Laboratory Identification Number: DCHM

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Payroll#: 0636267

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Air Volume L	
J114X8	06I06389	22 Feb 2006	<0.02	U	<0.022	U	890.	
J114X9	06I06390	22 Feb 2006	<0.02	U	<0.025	U	807.	
J114X3	06I06391	22 Feb 2006	<0.02	U	<0.030	U	668.	
J114X4	06I06392	22 Feb 2006	<0.02	U	<0.051	U	395.	
J114X5	06I06393	22 Feb 2006	<0.02	U	<0.035	U	572.	
J114X7	06I06394	22 Feb 2006	<0.02	U	**		0.00	
J114X6	06I06395	22 Feb 2006	<0.02	U	**		0.00	
Limit of Detection (LOD)			0.02					
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Lead $\mu\text{g}/\text{sample}$		Lead $\mu\text{g}/\text{m}^3$		Cadmium $\mu\text{g}/\text{sample}$	
J114X8	06I06389	22 Feb 2006	<1.	U	<1.1	U	<0.08	U
J114X9	06I06390	22 Feb 2006	<1.	U	<1.2	U	<0.08	U
J114X3	06I06391	22 Feb 2006	<1.	U	<1.5	U	<0.08	U
J114X4	06I06392	22 Feb 2006	<1.	U	<2.5	U	<0.08	U
J114X5	06I06393	22 Feb 2006	<1.	U	<1.7	U	<0.08	U
J114X7	06I06394	22 Feb 2006	<1.	U	**		<0.08	U
J114X6	06I06395	22 Feb 2006	<1.	U	**		<0.08	U
Limit of Detection (LOD)			1.				0.08	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	
J114X8	06I06389	22 Feb 2006	<0.090	U
J114X9	06I06390	22 Feb 2006	<0.099	U
J114X3	06I06391	22 Feb 2006	<0.12	U
J114X4	06I06392	22 Feb 2006	<0.20	U

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	
J114X5	06I06393	22 Feb 2006	<0.14	U
J114X7	06I06394	22 Feb 2006	**	
J114X6	06I06395	22 Feb 2006	**	
Limit of Detection (LOD)				
Required Detection Limit (RDL)				

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.

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Payroll#: 0636267

Batch ID: G061P015

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241672-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241672-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-241672-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-241672-1	LCS	Beryllium	µg/sample	10.9	NA	10.0	109.	NA
QC-241672-1	LCS	Lead	µg/sample	106.	NA	100.	106.	NA
QC-241672-1	LCS	Cadmium	µg/sample	31.5	NA	30.0	105.	NA
QD-241672-1	LCSD	Beryllium	µg/sample	10.8	10.9	10.0	108.	1.18
QD-241672-1	LCSD	Lead	µg/sample	105.	106.	100.	105.	0.737
QD-241672-1	LCSD	Cadmium	µg/sample	31.4	31.5	30.0	105.	0.220

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$$\text{LCS, LCSD Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$$

$$\text{MS, MSD Percent Rec.} = ((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$$

$$\text{LCS, LCSD Relative Percent Diff.} = ((|\text{LCS} - \text{LCSD}|) / ((\text{LCS} + \text{LCSD})/2.0)) * 100.$$

$$\text{MS, MSD Relative Percent Diff.} = ((|\text{MS} - \text{MSD}|) / ((\text{MS} + \text{MSD})/2.0)) * 100.$$

$$\text{LD Relative Percent Diff.} = ((|\text{Parent} - \text{LD}|) / ((\text{Parent} + \text{LD})/2.0)) * 100$$

10-5640-20

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST											
Collector: John Peoples		Company Contact: Denise A. Pitts and Henry W. Ruby		Telephone No. 531-1229		Project Coordinator: John H. Keener		Date Turnaround: 24hr			
Payroll #: 0636267		Sampling Location: 300 4th St / 333rd St		SPECIAL INSTRUCTIONS: All relevant COAs must be provided: R 333003451		SAF No. RC-001					
Type of Sample: Be Cd + Pb samples		Wipe Sample Matrix: Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No		ANALYSIS METHOD (SPECIFIC): NIOSH 7300		Method of Shipping: Federal Express					
Shipped To: Data Chem		Other: <input type="checkbox"/>				Bill of Lading/Air Bill No. 8544 9435 4830					
Salt Lake											
POSSIBLE SAMPLE HAZARD/REMARKS		MATRIX: A - AIR, WT - WIPE, X - OTHER		Preservation (i.e., cooling required, etc.)							
Special Handling and/or Storage											
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) <small>1000 ml</small>	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Pb Wipe	Asbestos Airborne
J11418	A	02-13-06	890	Personal	X	X	X	X	No	No	No
J11419			807		X	X	X	X	No	No	No
J11413			668		X	X	X	X	No	No	No
J11414			395		X	X	X	X	No	No	No
J11415			572	Personal	X	X	X	X	No	No	No
J11417			NA	Blank	X	X	X	X	No	No	No
J11416	A	02-13-06	NA	Blank	X	X	X	X	No	No	No
<p>02-13-06</p> <p>02-13-06</p>											

WCH-SH-202 (08/29/2005)

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Enter on line below the first Sample Number from Page One:

544x8

[illegible]

REVIEWED BY:

DATE:

PRINT/SIGN NAME _____

WCH-SH-202 (08/29/2005)

30

Enter on line below the first Sample Number from Page One:

544X8

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
<i>John Peoples</i>	02-13-06 / 16:00	Locked Cabinet Room 16 Bldg 3246	02-13-06 / 16:00
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Locked cabinet 3746 Wdg Rm #16			
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
<i>Goldie Mathan</i>	02/21/06 / 1440	R2 Steffler <i>R.J. Steffler</i>	2-21-06 / 1440
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
<i>R2 Steffler R.J. Steffler</i>	2-21-06 / 1600	Fed Ex	
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY:

DATE:

PRINT/SIGN NAME